Transportation
—A Link in the Logistics Continuum

by Lieutenant General Benjamin F. Register, Jr.

Logistics is the art of moving armies and keeping them supplied. These few words place into perspective the challenge and dependence of logistics on a reliable transportation system. Transportation is vital to the total logistics system; and, from the planner's view, several key factors must be a part of every logistician's perspective.

The first factor is that logistics must be viewed as a continuum that extends from source, or origin, to the point of consumption. From our perspective, the logistics system extends from the factory to the foxhole and is supported by a transportation distribution and redistribution system that is interwoven throughout. Each of you, from your own role in Government or industry, must relate to your own segment of the total continuum, be it factory to depot; depot to airport or seaport; port to port; storage site to forward storage or point of consumption; or some combination of these segments.

Next, we must recognize that logistics posturing is an essential planning element. We are all, military and industry alike, faced with the immutables of logistics—weight, volume, time, distance, and complexity. Military decisions as to what materiel, how much, and where to pre-position it are critical to logistics support on the battlefield as well as to the efficiency and ultimate success of peacetime and industrial logistics operations. These decisions must be made based on an understanding of the immutables and must be within our transport capability.

The logistician's third key factor is that the logistics continuum is a system of nodes, or links. Our ability to define and understand the interfaces between the nodes is essential to maximizing the overall capability and flexibility of the total logistics system. The system must be viewed as a pipeline. You cannot connect a 2-inch pipe to a 10-inch pipe and expect a 10-inch flow from the 2-inch end. It just won't work. When properly planned and managed, the interfaces between nodes can provide logistics-capability multipliers, reduce pipeline constrictions, and mitigate the immutables.

The next key factor is information and data—the intelligence of logistics. Adequate, responsive management information provides us with defined requirements, materiel status (both quantity and condition), and the command and control capability to operate in a proactive manner. Logistics intelligence gives us the ability to establish priorities, allocate shortages, and operate effectively across the entire logistics continuum. It is also the key to controlling cargo movement through the logistics pipeline. Logistics information and data systems must be thoroughly defined and carefully developed so they provide the necessary linkage among supply, maintenance, and transportation components of the total logistics system.

The final key logistics factor is interoperability and standardization. Never before has this been so critical. We must have systems that are interoperable not only within the Army and across the military services but also with allied forces and with American and foreign industries that will support us in wartime. This is particularly important to the operation of a coalition logistics system upon which our forces will depend in the North Atlantic Treaty Organization (NATO) and other theaters. We will rely on commercial, allied, and host nation support for a large portion of our wartime combat service support capabilities. Without interoperability and standardization, we will be unable to make those contributors active and efficient elements of the logistics continuum.

Within these logistics perspectives are to be found the realities of today's Army and the Army of the future. Our active force manning ceiling will remain at about 780,000 for the foreseeable future. Today, our soldier, who is smarter and better trained, will operate new, modernized, and technologically advanced equipment. The missions of the modern Army extend over the entire spectrum of potential conflict from response to terrorist activity to defense of NATO. These potential commitments will be met by new Air-Land Battle doctrine and an Army of Excellence force structure that is combining technology with innovative light forces. Each of these realities has its own major logistics implications. They present both challenges and opportunities to modernize Army logistics doctrine, organizations, and equipment, and the modernization process is well underway.

The C-17 (below) may be our airlifter of the future, and containerships like the USNS Algol (right) are improving our surface deployment and sustainment capabilities.

Using these precepts, we can sharpen our focus on the unique transportation challenges we face as logisticians.

What is the value of transportation to the Army and the Nation? Quite simply, transportation is critical to our deterrent strategy and to our ability to fight and win if deterrence fails. Transportation is the critical element of deployability—moving forces from the United States to oversea theaters and, once there, to sustain those forces. We must be able to move supplies, ammunition, and equipment; and, within the theater, we must be able to reposition forces to meet the needs of the modern, dynamic battlefield. Of utmost importance in accomplishing these tasks is a sound, responsive transportation system—a military and industrial partnership—that displays our resolve to potential adversaries. Our transportation system is a vital component of our overall readiness.

I would like to share with you what we in the Army see as challenges facing the transportation community.

First and foremost, we must continue to build an adequate, responsive. strategic mobility capability. We must do this as a matter of national commitment and in an atmosphere of industrial-military cooperation. In wartime, the Army—our Nation's land force—will rely on the civil sector and military assets for oversea deployment and sustainment. We support all initiatives to improve our strategic mobility, such as the conversion of the SL-7 fast containerships to roll-on-roll-off configuration, the expansion of the ready-reserve force, and the early development and fielding of the C-17, the airlifter of the future. We are working directly with our counterparts in the Navy and the Air Force to ensure that our needs are clearly defined and understood and that the most practical solutions are pursued. The challenge is to build upon our success, relying on strategic mobility (airlift, sealift) to give us the balanced responsiveness and flexibility required to respond to future needs.

Our Nation was built on innovation and the application of new ideas. A part of the solution to the mobility problem can be realized through the use of advanced technology. We must aggressively seek and exploit opportunities to apply state-of-the-art technology to improve productivity and responsiveness. The old saying "Do more with less" was never more applicable than it is today. We must also do it better. We now have that opportunity through the application of modern technology. New, energy-efficient equipment; modern

packaging; integrated materiel distribution systems; and intermodalism and containerization are but a few of the critical areas in which improvements can and must be realized.

We must seek ways to apply logistics research and development to provide lighter materials; stronger, lighter, less dense packaging; and improved reliability throughout the transportation system. We must seek to lighten not only the load to be moved but also the overhead—the dunnage and packaging—which is moved along with the cargo. The benefits of seeking and applying new technology will accrue to the shipper in better, faster, more efficient service.

Automation, the third challenge, is also an area in which the return on investment can indeed be great in terms of economy and efficiency. Advances in automated systems are making transportation and logistics planning and operations more precise, faster, and more efficient. We must maintain the momentum. Monumental advances in automation technology and application have been brought on by the computer revolution of the past decade—a revolution that continues today. The opportunities to apply state-of-the-art minicomputers and microcomputers and computer networking technology are limited only by our imagination. The challenge is to apply that vast capability to all possible aspects of our business. Our ultimate goal should be no less than a real-time, paperless system that integrates the documentation and control requirements of shippers, industry, and the military.

We must never forget that transportation is a human system. It is operated by people, to serve people. We are continually challenged to recognize the human aspects of our business, whether we are supporting soldiers on the battlefield or families during relocation. We need to continue our efforts to improve the quality of life of soldiers and their families through better and more reliable transportation services.

Leadership is the fifth and final major challenge. The Secretary of the Army and the Army Chief of Staff have declared 1985 to be the year of leadership. This is very timely to us in the transportation community. We must make a concerted and dedicated effort to improve our professional capabilities and leadership skills through better training, progressive organization and management, and modern communication techniques, and by exploiting the capabilities of technology and automation. We must also work hand-in-hand to improve military-industrial interfaces; to jointly develop new concepts and practices; and to strengthen our partnership with shipper and industry organizations.

Leadership is the catalyst that drives us to accomplish more together than the sum of our individual efforts. This time-proven principle applies to all organized human effort, not just the military. I urge every professional in transportation to embrace this theme and strive to meet this challenge—for leadership in logistics, leadership in transportation.

Today the Army is building the Army transportation system of tomorrow. We are striving to meet the challenges we face in building that system with new initiatives and innovative and progressive thinking. How well we meet the challenges will be the determining factor in whether we succeed or fail. Join with me in meeting those challenges. The future is there for those who don't live in the past. Let's make it happen together. ALOG

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